

Claims

- [1] A leakage preventing structure of a dishwasher, comprising:
a wash motor having a motor shaft disposed at a center thereof;
a sump housing having the motor shaft inserted therethrough; and
a sealing portion for sealing a space between the wash motor and the sump housing.
- [2] The structure according to claim 1, wherein the sealing portion seals a space between the motor shaft and the sump housing.
- [3] The structure according to claim 1, wherein the sealing portion is an aircap for controlling a water level of washing water introduced into the aircap by means of air pressure inside the aircap.
- [4] The structure according to claim 1, wherein the sealing portion is a sealing member coupled to the motor shaft of the wash motor.
- [5] The structure according to claim 1, wherein the sump housing includes a sealing case formed thereon for allowing the motor shaft to be inserted therethrough.
- [6] The structure according to claim 5, wherein the sealing case has sealing oil filled therein.
- [7] A leakage preventing structure of a dishwasher, comprising:
a motor shaft through-hole disposed at a central bottom portion of a sump housing, the sump housing including a sealing case having a diameter larger than that of the motor shaft through-hole and having a predetermined height;
an aircap installed inside the sump housing and covering a top of the sealing case; and
a wash motor installed beneath the sump housing.
- [8] The structure according to claim 7, wherein the aircap includes a motor shaft through-sleeve for inserting a motor shaft of the wash motor therethrough, an aircap upper plate having a predetermined diameter and formed at a bottom of the motor shaft through-sleeve, and at least one aircap wall having a predetermined diameter and height and formed to extend perpendicularly down from a bottom of the aircap upper plate.
- [9] The structure according to claim 7, wherein the aircap has air disposed therein for regulating a maximum water level of washing water introduced into the aircap.
- [10] The structure according to claim 9, wherein the maximum water level of washing water introduced into the aircap is maintained to be equal to or less than the height of the sealing case.
- [11] The structure according to claim 7, wherein the sealing case includes a sealing

- cover resting therein, the sealing cover being filled with sealing oil.
- [12] A leakage preventing structure of a dishwasher, comprising:
a leakage preventing aircap including a motor shaft through-sleeve having a pre-determined diameter and height, an aircap upper plate protruding a pre-determined distance radially from a bottom of the motor shaft through-sleeve, an aircap outer wall extending from a bottom of the aircap upper plate, and at least one aircap inner wall formed within the aircap outer wall; and
a sump housing on which the aircap is installed.
- [13] The structure according to claim 12, wherein the aircap inner and outer walls form a space therebetween in which air is disposed.
- [14] The structure according to claim 12, wherein air contained in the aircap limits a water level of washing water introduced into the aircap.
- [15] The structure according to claim 14, wherein the water level of washing water introduced into the aircap is restricted to be equal to or less than a height of a sealing case.
- [16] A leakage preventing structure of a dishwasher, comprising:
a wash motor;
a sealing member coupled to a shaft of the wash motor; and
a sump housing forming a washing water reservoir, and including a sealing case at a bottom thereof for inserting the sealing member therein.
- [17] The structure according to claim 16, wherein the sealing member is installed outside the sump housing.
- [18] The structure according to claim 16, wherein the sealing case having a pre-determined height and diameter is formed at a central bottom portion of the sump housing, and the sealing case has a motor shaft through-hole having a pre-determined diameter and is formed at a top of the sealing case for inserting the motor shaft of the wash motor therethrough.
- [19] The structure according to claim 16, wherein the sealing member is made of a rubber material having a predetermined elasticity.
- [20] The structure according to claim 16, wherein the sealing member is coupled to the motor shaft of the wash motor before the wash motor is installed below the sump housing.